

Doing Research in General Practice: Advice for the Uninitiated

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There is increasing recognition of the importance of primary care research in relation to diabetes. Doing research in general practice is in many ways different from the hospital setting. This article considers some of the potential barriers to doing valid and reliable research in general practice. It is written for both novice researchers and researchers new to the general practice setting. Careful initial definition of the research question is crucial, especially as the clinical material may be less well defined in general practice and patients' problems need addressing on many levels (physical, psychological, social, cultural). Searching the literature for general practice-based studies is not straightforward. If your study involves more than one geographical site you may have to obtain ethical approval from multiple research ethical committees, and it is prudent to discuss your research with the Local Medical Committee. Practical advice is given on working with practices: improving response rates from questionnaires; recruiting and retaining practices; 'getting hold' of the GPs; particular difficulties related to novice or experienced practices; ensuring uniformity of methodology; and the importance of ancillary staff. Contentious issues such as money should be discussed at the outset. Many areas of the country now have General Practice Research Networks, and many of these now have NHS R&D support funding. Training in research methodology can be accessed through the Association of University Departments of General Practice or Royal College of General Practitioners or local departments of general practice. A list of useful contacts is given. © 1998 John Wiley & Sons, Ltd.

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Ann-Louise Kinmonth has made a strong case¹ that primary care has much to offer the diabetes research community. Doing research in general practice is quite different in many ways from hospital-based clinical research, and this article considers some of the potential barriers to obtaining valid and reliable research evidence in the primary care setting.

What to Research—Asking Questions

There is an increasing recognition of the importance of primary care research both in general^{2,3} and particularly in relation to chronic diseases such as diabetes.¹ As the then chairman of the British Diabetic Association, Professor Harry Keen (a diabetologist) and the chairman-elect, Dr Michael Hall (a GP) wrote in 1996, 'There is a great need for research and development studies in diabetes at the primary care level, and at the important interface between general practice and the local diabetes specialist team. Well-conducted population based studies of diabetes and its complications, the impact of social, emotional, and economic factors, and the effective long-

term application of preventive strategies are among the areas of great value both to knowledge generally and to improved health outcomes specifically. They are also areas of enquiry and observation to which primary care conditions are particularly suited.'⁴

Research is the process of finding reliable answers to simple questions. People working in primary care are never short of questions related to their everyday practice. Experience as a supervisor of GPs wanting to do research shows that the problem is not one of shortage of ideas, but rather of moving from the statement 'wouldn't it be interesting to look at X' to refining an answerable question about X.⁵ This step is perhaps particularly crucial in primary-care-based research, where the clinical material is generally less well defined and patients' problems may need addressing at a number of different levels (physical, psychological, social, cultural, and so on).

A good research question is simple—it only asks one question, and that question is answerable, i.e. there is, at least theoretically, an experimental design that will resolve it. Moreover it passes the two key tests—the 'so what?' test (if an answer was found to this question would it make any difference?) and the 'who cares?' test (would the answer to this question matter to anyone other than the researcher?). In considering quantitative research, i.e. anything that involves collecting data and

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analyzing it in numerical form, a good question can be stated in terms of a testable hypothesis for which evidence to confirm or refute can then be sought.

Searching the Literature using the Medline Database

Current research evidence from primary care is relatively sparse on standard databases such as Medline.² Many general practice papers are published in the 'grey literature', journals which are not included in electronic databases. Furthermore, papers relevant to, or about, general practice may not be indexed as such, and it may require a sophisticated search strategy to avoid missing important articles.⁶ The Primary Care Section of the British Diabetic Association (Primary Care Diabetes, UK) is compiling a database of primary care diabetes research, which will be housed at BDA headquarters.

Ethical Committees

Obtaining ethical approval for any study (from the local research ethics committee) can be time-consuming and bureaucratic. Unfortunately no single umbrella organization can grant ethical approval for a study if it is to be done in geographically scattered general practices. Ethical committees are notoriously non-uniform in their approach and they may not meet very frequently, so the timing of the application may prove crucial. One study of micro-albuminuria screening in general practice involved 8 general practices, and 11 ethical committees.

As well as getting ethical approval, it is also prudent to discuss the study with the Local Medical Committee. Although this committee has no statutory function in relation to research, it usually includes some of the most influential local general practitioners who could facilitate or hamper a research study in subtle ways, and it is best to have them on board.

Working with Practices

The approach to practices depends on the nature of the particular study. Postal surveys of randomly selected GPs are notorious for poor response rate. GPs are bombarded with questionnaires and most go straight into the bin. A questionnaire survey with a response rate of less than 65 % is likely to be biased and will probably be unpublishable. Gina Agarwal and I have recently completed the data collection phase of a postal survey of a 1 in 5 random sample of general practices nationally on behalf of Primary Care Diabetes (PCD), UK. We obtained a response rate of more than 70 % through careful strategic planning. For example, the initial questionnaires were sent out on 1 September, i.e. immediately after the summer holidays rather than July or August when a key contact may be on holiday. We arranged for the GP 'trade press' to carry articles about the survey in the two

weeks prior to the first questionnaires arriving in the practices. Final data collection was completed prior to the Christmas holidays.

After the standard approach of sending two reminders with a copy of the questionnaire accompanying the second one, we set about contacting the non-responders. The practices were all telephoned by one of the members of the research team. We tried to speak to the person in the practice with the greatest interest in diabetes, whether they were GPs, practice managers or practice nurses. We briefly explained the survey and why it would benefit general practice. Having made an 'ally' in the practice, we sent or faxed another questionnaire which they were asked to complete with the help of the GP. At the same time we re-ran articles in the trade press and publicized the study at a diabetes conference in November and a third copy of the questionnaire was sent out to nurses in the practice (on coloured paper). Our final strategy involved asking members of the PCD committee, all of whom were elected to post and are well-known figures in primary care diabetes, to take responsibility for chasing up non-responders in their localities. This kind of combined effort should be written into the protocol of a primary care research study from the outset.

Recruiting and Retaining Practices

Studies that involve recruiting and retaining practices need to attend to a different set of issues. These may be obvious to people already working in primary care but not to researchers new to the field. The first stage always involves selling the study to the practices. Practices are essentially small businesses and gain no financial reward for doing additional work in the research field (though this situation is beginning to change with core funding for designated research practices, see below). It is essential to minimize the tasks required of members of the practice team. In order to have any hope of recruiting practices, the study must be seen to be useful, relevant and likely to result in practical changes in day-to-day practice. It is better to have practices who are really committed to the work than to steamroller them into participating and have them drop out halfway through.

In a recent multi-practice study, we aimed to draw a random sample of practices in four areas of the British Isles, who would then have to collect data over an extended period. We held a meeting in each of the four areas for practices who might be interested but without pressure to commit to the study. Critical to the success of this was the presence of national and local opinion leaders who gave the study their blessing. We wrote to the GPs inviting them and their practice managers/chief receptionists to attend. After that initial meeting we assessed interest and allowed a 2-week cooling-off period before we asked them to commit to the study. During this period we stayed in touch with the practices to answer any of their fears/worries. Although some practices

chose not to participate, those who did sign up have been enthusiastic partners.

Initial Contact with the Practice

If the study involves contacting practices individually, an initial brief phone call from the research co-ordinator (doctor to doctor, if appropriate) briefly outlining the study, followed up by a letter with further information, can be very useful. Researchers who will be doing fieldwork in the practice should be introduced to key members of the practice early on.

Getting Researchers Past the Receptionists

One of the major stresses identified by working GPs is interruption and receptionists are very skilled at protecting GPs from extraneous phone calls and visits. This can cause difficulties for researchers unfamiliar with general practice. It helps if the researcher lets the receptionist know that the GP is expecting the call and is interested and involved in the study. Most GPs are in surgery more or less continuously from about 8.45 a.m. until 12 noon, and again from about 4.00 to 6.00 p.m. If you want to speak to the doctor, phone before surgery starts, at lunchtime or at the end of the day. If necessary make an appointment to call back at a time convenient for the doctor.

The Importance of the Ancillary Staff

General practices are typically flatter organisations than hospitals and each has its individual culture. Just because one GP in the practice has agreed to your study does not mean that it will be successfully carried out. It is well worth spending time explaining the study and its value to the ancillary staff, particularly the practice manager and the receptionists, and gaining their support. Once the whole practice has a sense of ownership it is often quite remarkable how much they will do for you in spite of their own busy schedules.

Recruiting the Novice or the Experienced Practice

Paradoxically it can be easier to recruit a practice that is new to research than one that is experienced. However, if it is a novice practice you will need to spend time dealing with anxieties about being able to deliver what is required. In the experienced practices, particularly if they feel that they have been over-researched, you will need to explore their previous experiences with researchers, as these will affect the practice's attitude to your study. It is not uncommon, for example, for practices to report that a young researcher visited a year or two ago, administered questionnaires or took blood from a few dozen patients, then never reported back. Alternatively,

researchers may have been seen as impolite, intrusive or insensitive to the realities of primary care.

Retaining your Practices

The keys to retaining your practices are ownership/involvement, communication (listening as well as telling), valuing their contribution, enthusiasm and not expecting too much of them. Involve the practices at an early stage and listen to their feedback about the project. They can be invaluable at the stage of piloting a new methodology. If you take their ideas on board, acknowledge them, and if you don't, explain why. Keep an ongoing dialogue; give them progress reports; encourage realistic ideas about more involvement in the study if that is what they want; and inform all staff of what is going on (not just the GP or practice manager). Enthusiasm is infectious. However, although the study may be the most important thing in your life, it probably isn't the most important thing in theirs and they have 'real work' to get on with. A balance must be struck between expecting too much and leaving them feeling uninvolved.

Achieving Uniformity of Methodology

The issues here are much the same as for any multi-centre study. All participants should be issued with an information pack including the study protocol, details of technical and administrative procedures, instructions to participants, and information sheets. These may, however, not be read unless a researcher gives a formal presentation and goes through the material. A telephone help-line (with answering machine if necessary) should be available during the data collection period.

Give Something Back to the Practices

There is nothing more irritating than helping someone with their research and never hearing about the results. Discuss your findings with the practices. They may be able to help you with the interpretation of your results and where to take the research next.

Money

The financial arrangements in general practice and hospital are quite different. Moreover some GPs will have had previous experience with pharmaceutical companies where they have been paid to include patients in studies. These issues can lead to misunderstandings, so financial arrangements should be clarified at the outset. If a study involves practice staff being taken away from their daily work then a budget should be available to reimburse the practices, at least in part. Requests for such payment should not be viewed as unreasonable or unethical.

Primary Care Research Networks

Primary care research networks—groups of practices with formal links with one another and a co-ordinating centre—now exist in many parts of the country. Joining a research network is a good vehicle for both learning about and doing research in primary care. The first to be established was the Medical Research Council's General Practice Research Framework (MRC GPRF), which was set up in 1973 to support the MRC mild hypertension trial. Increasingly the MRC network is doing work led by investigators outside the co-ordinating unit. The Northern Research Network (NoRen) was set up in 1993 and the Wessex Primary Care Research Network (WreN) in 1994.

In 1997 the Institute of Health Policy Studies (IHPS) at the University of Southampton identified 22 primary care research networks nationally. The report⁷ gives a good overview of their location, composition and activity. They varied in membership from 10 (Cumbria Practice Group) to 900 (MRC GPRF). All but one were multi-disciplinary, some had formal links with academic departments, and there were marked differences in both their aims and their management styles. In December 1997 NHS research and development support funding was made available for primary care networks nationally. The aim of this expansion was to establish infrastructural and organizational support for the development of primary care research in every region of the country.

Training in Research Methodology for Primary Care

Information about research methods courses for primary care can be obtained from the Research Office and the Education Network at the Royal College of General Practitioners (RCGP), which also holds a list of MSc programmes in general practice and primary care. The Association of University Departments of General Practice (AUDGP)/RCGP have a well established three-day course in research methods which runs annually in the autumn, at St. George's, London, and gives a good, if brief overview. Information may also be obtained from local academic departments of general practice or primary care. The AUDGP keeps a master list of such departments.

Non-GP primary care workers and non-clinical scientists, e.g. nurses, sociologists anthropologists and psychologists, make up a considerable proportion of AUDGP membership.

Conclusion

We live in exciting times. Increasing numbers of patients are having most or all of their diabetes care in primary care, and unanswered research questions abound.¹ If primary care is going to deliver evidence-based practice, the relative lack of high quality, valid and generalizable research evidence in this field must be addressed through appropriate training, academic support, and the creation of a research culture within primary care.

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Useful Contacts

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